

**PRINTED WIRING BOARDS
AND METHODS FOR MAKING THEM**

ABSTRACT OF THE DISCLOSURE

[0120] A method of applying a conductive carbon coating to a non-conductive surface and a printed wiring board having through holes or other nonconductive surfaces treated with such carbon coatings are disclosed. A conditioning agent is applied to the non-conductive surface to form a conditioned surface. A liquid dispersion of electrically conductive carbon (for example, graphite) having a mean particle size no greater than about 50 microns, combined with an organic binding agent, is coated on the conditioned surface to form an electrically conductive carbon coating. The conductive carbon coating is then optionally fixed on the (formerly) nonconductive surface and dried. The resulting coating has a low electrical resistance and is tenacious enough to be plated and exposed to molten solder without creating voids or losing adhesion, yet is easily removable from copper surfaces of the substrate by microetching.